A Report Prepared for:

King County International Airport P.O. Box 80245 Seattle, Washington 98108

Attention: Mr. John Llewellyn

# PHASE I ENVIRONMENTAL SITE ASSESSMENT GEORGETOWN STEAM PLANT PERMANENT ACCESS EASEMENT KING COUNTY INTERNATIONAL AIRPORT SEATTLE, WASHINGTON

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**DISTRIBUTION** 

#### 1.0 INTRODUCTION

#### 1.1 Purpose and Scope of Work

This report presents the results of a Phase I Environmental Site Assessment (ESA) conducted by PES Environmental, Inc. (PES) of the proposed Georgetown Steam Plant Permanent Access Easement (proposed easement) located at the King County International Airport (KCIA) as shown in Figure 1. PES conducted the Phase I ESA on behalf of KCIA to evaluate the potential for onsite and/or offsite releases of hazardous materials that may affect the proposed easement.

The Phase I ESA activities were performed pursuant to the Agreement for Consultant Services between King County and PES dated May 5, 2004 and consistent with the American Society of Testing and Materials (ASTM) Standard E 1527-00 except as noted in Section 1.2. PES performed the following tasks during this assessment:

- Reviewed Federal, State, and local agency databases to identify nearby sites which have reported use, storage, or release of hazardous materials;
- Reviewed environmental regulatory agency files for the subject property and nearby sites
  with respect to hazardous materials use, hazardous waste generation, and releases of
  hazardous materials:
- Conducted historical research to identify any previous environmental investigations for the subject property;
- Conducted historical research for the subject property and surrounding area;
- Conducted an inspection of the proposed easement area;
- Conducted reconnaissance of the surrounding area;
- Interviewed persons familiar with the subject property; and
- Prepared this report presenting the results of the Phase I ESA.

# 1.2 Special Terms and Conditions

The ASTM Standard specifies minimum search radii for environmental database be conducted for adjacent properties up to a 1-mile from the property boundaries of the proposed easement. However, based on KCIA's request, PES's approved scope of work reduced the maximum search radii to 0.25-mile from the proposed easement boundary lines. The reduced search radii were requested because of the small size of the easement, which is located within the boundaries of several existing parcels and the low probability that properties at a distance of more than 0.25 mile would impact the easement.

This ESA did not include asbestos, lead-based paint, or drinking water assessments and also did not include a title search or a mold screening survey. There are no other special terms or conditions for this project.

# 1.3 Limitations

Lack of evidence of the presence of hazardous materials following completion of the tasks of a reasonable and mutually agreed-upon scope of work does not guarantee the absence of such material; rather, it indicates only that none was found as a result of the services provided. Although the limited nature of PES' proposed scope of work precludes the firm from providing a warranty or guarantee regarding the presence or absence of hazardous materials that could potentially affect the site, PES will provide its best professional judgment of the possible hazardous materials liability facing the Owner and will perform the agreed-upon services in accordance with practice and procedures generally accepted in the consulting engineering field.

#### 2.0 SITE DESCRIPTION

#### 2.1 Location

The proposed Georgetown Steam Plant Permanent Access Easement (proposed easement) consists of portions of four separate parcels at KCIA: Leaseholds #7185 (6650 Ellis Avenue South), #7237 (6640 Ellis Avenue South), #7137 (6736 Ellis Avenue South), and #7142 (Boeing Company). The proposed configuration of the easement is shown on Figure 2. The proposed easement is situated within the city limits of Seattle at the north end of KCIA in the Duwamish River Basin approximately 4 miles south of downtown Seattle, Washington, within Section 29, Township 24 North, Range 4 East, Seattle South, Washington.

# 2.2 Proposed Easement and Vicinity Characteristics

According to United States Geological Survey (USGS) Seattle South, Washington 7.5-Minute topographic map (1983), the subject site is located at an elevation of approximately 5 to 10 feet above mean sea level (MSL). The topography in the local area and at the site is flat with little variation in elevation.

The proposed easement is comprised of approximately 1-acre of land that includes an east-west access driveway (approximately 35 feet wide by 415 feet long) from Ellis Avenue South to a proposed parking lot at the eastern end of the driveway (approximately 200 feet by 135 feet). The proposed easement is located within a mixture of residential and industrial land uses, in the Georgetown neighborhoods of south Seattle, Washington. This area is situated between KCIA on the east, South Warsaw Street to the north, Ellis Avenue South on the west, and the Boeing Company and Washington Air National Guard Station (ANGS) to the south (Figure 2).

Motor vehicle access to the proposed easement is from the west via a locked, gated driveway entrance from Ellis Avenue South and from the north via a roadway on South Warsaw Street. The property is predominantly covered by asphalt with some areas of exposed gravel and grass surfaces.

The area to the west of Ellis Avenue South in the vicinity of the proposed easement is primarily residential properties. The Duwamish River Waterway is located approximately 1 mile to the southwest.

# 2.2.1 Geology and Hydrogeology

The proposed easement is located in the southeastern portion of the Puget Sound Lowland, a topographic low between the Cascade Range and the Olympic Mountains. Specifically, the proposed easement lies on the east side of the Lower Duwamish Valley between Beacon Hill on the east and the West Seattle Drift Upland on the west. The valley is thought to have been formed during the last glacial advance over 10,000 years ago (Mullineaux, 1970). The valley is filled with over 100 feet of Quaternary alluvium (primarily sand and silt) interbedded with marine sand deposited after the last glaciation. Tertiary volcanic and sedimentary rocks are at or near the ground surface on portions of Beacon Hill and locally up the valley (Galster and Laprade, 1991). The depth to bedrock is at least 100 feet beneath the site with the depth to bedrock increasing considerably down the valley from the proposed easement (Yount and others, 1985).

In the Duwamish Valley, groundwater-saturated conditions are typically encountered within 10 feet of the ground surface and exist to at least 150 feet bgs. Groundwater generally flows toward the Duwamish River, with local flow directions modified by man-made features (e.g., storm drains, foundation pilings, and river bulkheads) in the shallow subsurface. Deeper groundwater flow may be affected by silt and clay layers that isolate the shallow and deeper saturated zones. The Duwamish River and deeper saturated zones near the river are tidally influenced. The tidal influence effect decreases with distance from the river.

#### 2.3 Description of Easement and Onsite Structures/Improvements

#### 2.3.1 Description of Easement

This section describes the four properties that contribute to the proposed easement and describes the portion of each property to be included in the easement. These properties and features are shown on Figure 2, and photographs of the proposed easement are presented in Appendix A. The proposed easement property is comprised of portions of the following four leaseholds at KCIA:

- The former Washington State Motor Pool property (leasehold #7185),
- Air National Guard Station (leasehold #7137),
- Great Western Soil Conditioning (leasehold #7237) and,
- Boeing Company (leasehold #7142).

Washington State Motor Pool (Motor Pool). Located at 6650 Ellis Avenue South, this leasehold is a rectangular-shaped property approximately 0.68 acres in size and is surrounded on

all four sides with a chain-link and barbed-wire fencing. The site has two locked gates on the east and west ends of the property. The site is bordered on the west by Ellis Avenue South; to the north by the FAA Automated Flight Services System and KCIA Maintenance Facility; to the east by an access road that serves Great Western Soil Conditioning (GWSC); and to the south by the ANGS facility.

The portion of the Motor Pool property affected by the proposed easement is an approximately 0.25-acre rectangular-shaped parcel situated along the southern leasehold boundary adjacent to the ANGS. This portion of the proposed easement is covered primarily by asphalt pavement with isolated areas of exposed gravel surfaces. The former Motor Pool building was located in this portion of the proposed easement (Figure 2).

Air National Guard Station (ANGS). The portion of the proposed easement on the ANGS site is located at the northeast corner of the ANGS property and is a triangle-shaped grassy area approximately 2,000 sq. ft. in size. The proposed easement is bordered to the south and west by the remaining ANGS property, to the north by GWSC property, and to the east by Boeing.

Great Western Soil Conditioning (GWSC). The proposed easement crosses the southwest portion of the GWSC property. This area of the GWSC property is mostly paved storage area and includes a grassy strip along GWSC's southern fence-line boundary with Boeing and ANGS. The triangle-shaped GWSC property is approximately 2,000 sq. ft. in size and is located south of the existing GWSC building. GWSC is bordered to the west by an access road from the South Warsaw Street and further to the west by the former Washington State Motor Pool property; to the north by a KCIA Maintenance Facility parking lot; to the east by the Georgetown Steam Plant, and to the south by Boeing and ANGS.

**Boeing Company.** The portion of the proposed easement on the Boeing Company property is located at the north end of the Boeing property. The approximately 0.60-acre area for the proposed easement parking lot is roughly rectangular-shaped and is covered by asphalt pavement. The proposed easement area is used by Boeing for material and equipment storage and for operating a wastewater treatment system (see Section 5 for details). The proposed easement on the Boeing leasehold is bordered to the west by ANGS, to the north by GWS, to the east by the Georgetown Steam Plant and to the south by other Boeing facilities. Immediately south of and adjacent to the proposed parking lot on other Boeing facilities property is the flume from the Georgetown Steam Plant that extends to the Duwamish River.

#### 2.3.2 Onsite Structures

The proposed easement contains permanent structures that are located on the proposed easement or border the easement with the adjacent leasehold properties. These structures include chain-link fences along the borders of the former Motor Pool, ANGS, GWSC, and Boeing properties. In addition, the former Motor Pool has a below-grade oil/water separator. The Boeing portion of the proposed easement has an employee personnel trailer and a PCB processing facility. Please refer to Section 5.2 for information describing these structures. The proposed easement is comprised mostly of asphalt pavement with some areas of unpaved gravel and grassy surfaces.

### 2.3.3 Other Improvements

Seattle City Light (SCL) supplies electricity to the proposed easement leasehold properties. The Seattle Public Utilities supplies potable water. King County Metro supplies sanitary sewer service to the leasehold properties. King County is responsible for maintaining the main sanitary sewer line. Maintenance of private sewer lines on individual properties is the responsibility of the property owners. Sewage generated from the leasehold properties is treated at the King County West Point Treatment Facility located in Seattle, Washington.

Surface water run-off from the paved areas along the easement is directed to catch-basins and storm-drains that are part of KCIA's stormwater system, which eventually discharges to the nearby Duwamish River.

Several changes and improvements have occurred historically along the proposed easement, e.g., asphalt paving. Based on information obtained from the aerial photographs and previous site investigations, recent improvements have included the removal of a building and an underground storage tank (UST) on the former Motor Pool property.

#### 2.4 <u>Current Uses of Adjoining Properties</u>

PES conducted a reconnaissance of the surrounding area to assess whether neighboring properties pose potential environmental concerns to the site. The reconnaissance was conducted on June 2, 2004. Adjacent properties are used for a mixture of industrial/commercial and residential purposes. Figure 2 identifies the locations of adjoining properties. Photographs of adjoining properties are included in Appendix A. The results of the surrounding area reconnaissance are presented below.

#### **Properties to the North**

The proposed easement is bordered on the north by a vacant lot and Federal Aviation Administration Automated Flight Services Station (FAA AFSS), Great Western Soil Conditioning and a parking lot. Further to the north is the KCIA maintenance facility.

#### **Properties to the West**

The proposed easement is bordered on the west by Ellis Avenue South and residential properties to the west of Ellis Avenue.

#### **Properties to the South**

The proposed easement is bordered on the south by ANGS and the Boeing Company.

#### Property to the East

The Georgetown Steam Plant is located immediately to the east of the easement. Further to the east is KCIA's runway.

# 2.5 Historical Use of the Property and Adjoining Properties

Historical property use information was obtained from review of topographic maps, historical aerial photographs, previous investigation reports, and interviews with persons familiar with historical site uses. The proposed easement is located in a portion of south Seattle that has been used historically for a number of mixed uses including industrial, commercial, residential, and agricultural purposes. Development in the general area surrounding the proposed easement began in the early 1900s with the construction of the predecessor of the Georgetown Steam Plant. Historical maps and directories indicate portions of the proposed easement and surrounding area were used for residences, vegetable gardens and as a florist in the 1910s through at least 1929. In the 1930s and 1940s, portions of the proposed easement appeared to be used for military housing, and activities (equipment storage, vehicle parking, etc.) associated with the development of the ANGS property. The proposed easement area appeared to be used as an unpaved parking/storage area in the 1950 and 1960s. The former Washington State Motor Pool building was built over a portion of the proposed easement in the early 1970s and existed until it was demolished in 2001. The building that currently houses the GWSC facilities was built to the north of the proposed easement in the late 1970s and several small structures were constructed on the portion of the proposed easement on the Boeing leasehold sometime in the 1980s. Since then, the proposed easement appears to have been used for Motor Pool activities, paved storage areas and access drives. The following sections describe the findings of our historical research.

### 2.5.1 Topographic Map Review

PES reviewed the USGS Seattle South, Washington 7.5-minute series topographic map dated 1983.

**1983 USGS Map:** The proposed easement is developed and situated in a highly dense commercial/industrial area of south Seattle, Washington. The 1983 map included the Air National Guard property, the Georgetown Steam Plant, and several buildings to the southeast of the proposed easement.

# 2.5.2 Historical Aerial Photographs

PES reviewed historical aerial photographs obtained from EDR and Walker & Associates. Photographs from the years 1936 (earliest available), 1946, 1956, 1960, 1969, 1974, 1979, 1980, 1985, 1990, 1995, 2000, and 2002 (most recent) were reviewed. Aerial photographs for the years 1946, 1974, and 2002 can be found in Appendix B. The following summarizes the results of the aerial photograph review:

1936: The proposed easement appeared to have a structure located near Ellis Avenue. Property in the vicinity of the proposed easement appeared to be agricultural and residential. Seattle City Light's electrical steam plant (Georgetown Steam Plant) appeared in the photograph.

1946: The proposed easement area and vicinity to the north and west was heavily developed. A building was observed on the northeast corner of the ANGS property in the

approximate location of the proposed easement alignment. The area of the proposed easement parking lot had what appeared to be military barracks. These barracks appeared to be on several properties in the vicinity of the proposed easement.

1956: The building at the northeast corner of the ANGS site on the proposed easement observed in previous aerial photographs and the military barracks in the vicinity of the property did not appear in the aerial photograph. However, in the vicinity of the former ANGS building and located in the area of the proposed easement, disturbed earth was apparent in the photograph (this is in the same area that is discussed as a former IRP burial site described in Section 3.2). Part of the former Motor Pool and GWSC portions of the proposed easement appeared to be a large unpaved parking area. Several cars and trucks were parked at the northern and eastern portions of the GWSC property. The KCIA facility located north of the proposed easement appeared in the aerial photograph. Residential properties were located to the west across Ellis Avenue. The property south of and immediately adjacent to the proposed easement driveway on the ANGS property was vacant. Activity was observed on the Boeing property portion of the proposed easement. Structures or containers were observed in the area for the proposed easement parking lot.

1960: The proposed easement appeared as it did in the 1956 aerial photograph.

1969: The proposed easement and adjacent properties appeared mostly as they did in the 1956 aerial photograph. However, the ANGS property south of the subject site had one long, rectangular building and two smaller buildings at the north end of the ANGS site near the proposed easement's southern property boundary. Several vehicles were parked along the ANGS property line to the south of the proposed easement. Activity was observed in the area of the former IRP Burial site on the ANGS property. A structure that appeared to be part of a large airplane fuselage was located on the Boeing property portion of the proposed easement parking lot.

1974: A building that appeared to be the former Washington State Motor Pool facility appeared on the proposed easement. The unpaved property had several vehicles parked on the site. Properties in the surrounding area appeared mostly as they did in the 1960 aerial photograph. The properties to the north and east and adjacent to the proposed easement appeared to be vacant.

**1980:** The proposed easement and adjacent properties appeared mostly as they did in the 1974 aerial photograph. The property north of the former Motor Pool site (currently the FAA AFSS building) had several large trucks and truck containers on the property. The building formerly occupied by FAMCO transport located northeast of the proposed easement was observed in the aerial photograph. This area appeared to be paved around the building. Large trucks were observed on the northeast portion of the former FAMCO site.

1985: The proposed easement and adjacent properties appeared mostly as they did in the 1980 aerial photograph. However, the long, rectangular building located on the ANGS site was gone and replaced with a large structure that appears on the site today. In addition, the small building currently located on the ANGS site immediately south of the proposed

easement at Ellis Avenue was observed in the aerial photograph. The property to the north (currently the FAA AFSS site) was vacant.

1990: The proposed easement and adjacent properties appeared mostly as they did in the 1985 aerial photograph. The FAA's AFSS building located north of the subject site was observed in the aerial photograph. The proposed easement and properties to the north and east were paved. A building was observed on the Boeing property in the area proposed for the easement parking lot.

**1995:** The proposed easement and adjacent properties appeared as they did in the 1990 aerial photograph.

**2000:** The proposed easement and adjacent properties appeared as they did in the 1995 aerial photograph.

2002 The proposed easement and adjacent properties appeared as they do today. The former motor pool building is gone and the property is vacant.

# 2.5.3 Sanborn Maps and City Directories

PES requested a search for copies of historical Sanborn Fire Insurance Maps of the proposed easement address. Sanborn maps were available by EDR for the years 1917, 1929, 1949, and 1966 (Appendix D). Information summarizing the maps was obtained from PESs' review of the both the maps and information in AGI's 1999 ESA report.

- The 1917 map showed the Puget Sound Traction Light & Power Company Power Plant (Georgetown Steam Plant). The map indicated that the Duwamish River was in close proximity to the south of the power plant. A large portion of property west of the power plant, which included the proposed easement, was listed as vegetable gardens. Three small buildings were listed on properties adjacent to the proposed easement.
- The 1929 map showed the Puget Sound Power & Light Company Power Plant. One large building and four smaller out buildings were shown on a portion the proposed easement. The larger building was identified as Malmo & Company, a florist.
- The 1949 map appeared to be similar to the 1929 map. The proposed easement appeared to be vacant. Property north of the proposed easement was labeled as a nursery.
- The 1966 map indicated that the proposed easement was vacant. The Puget Sound Power & Light Company was renamed Seattle City Light Georgetown Power Plant. The Air National Guard School building was located south of the proposed easement.

Information regarding historical city directories was provided by EDR and the AGI 1999 ESA report. The AGI report included a review of city directories for the years 1938, 1948-49, 1953, 1964, 1970, 1977, 1979, 1980, 1987, 1983, 1994, and 1996. The report summarized directories for these years as follows.

- The Washington State Motor Pool at 6650 Ellis Avenue South was first listed in 1977 and 1979.
- The A&T Pump property at 6525 Ellis Avenue, located northwest of the proposed easement, was a gasoline service station from 1938 through 1970, vacant in 1977, a florist in 1980, a dry cleaner in 1983, and an automobile service station in 1994.
- The ANGS complex was listed at its present location since 1964.
- The property at 6640 Ellis Avenue South was listed as RS Albright, Inc. in 1979; FAMCO Transport was listed in 1987 and 1994.
- The property at 6526 Ellis Avenue South was listed as U.S. Transportation Department Federal Aviation Flight Services Station in 1987 and listed as U.S. FAA in 1996.

#### 2.5.4 Personal Interviews

PES interviewed several individuals familiar with each of the properties associated with and/or impacted by the proposed easement. The following summarizes the information PES obtained during the interviews.

- Mr. A.J. Merrick, KCIA. Mr. Merrick provided documents that pertained to historical usage of the property considered for the proposed easement.
- Mr. John Llewellyn, KCIA. Mr. Llewellyn accompanied PES on the site walk on June 2, 2004, and introduced PES to the representatives of the proposed easement properties.
- Chief Master Sergeant Leo M. Heider, Maintenance Superintendent, ANGS. CMSgt. Heider accompanied PES on the site walk of the portion of the ANGS property impacted by the proposed easement. CMSgt. Heider has been stationed at ANGS since 1972.
- Mr. Daniel C. McCormack, Environmental Remediation Geologist, Boeing. Mr.
  McCormack provided PES with information regarding the PCB treatment area in
  Boeing's equipment storage yard. Mr. McCormack has been at the Boeing plant since
  1997.
- Mr. Richard A. White, Local Government Relations Manager, Boeing. Mr. White accompanied PES on the site walk of Boeing's equipment storage yard. Mr. White has been at the Boeing plant since 2001.

Information regarding site use and history obtained during these interviews is discussed in Section 5, Proposed Easement and Surrounding Area Reconnaissance.

#### 3.0 PREVIOUS SITE INVESTIGATIONS

Several of the leaseholds that contribute property to the proposed easement have been the subject of environmental investigations. The following sections summarize the findings of those investigations as they pertain to conditions within the proposed easement.

#### 3.1 Former Washington State Motor Pool

#### 3.1.1 B&C Equipment 1992 UST Removal

PES reviewed B&C Equipment's January 1992 report entitled *Environmental Site Assessment,* for the property located at 6650 Ellis Avenue South, Seattle, Washington. The purpose of this assessment was to document the removal of an existing gasoline UST and to evaluate the potential for soil or groundwater contamination to exist at the site.

On November 14, 1991, a 10,000-gallon unleaded gasoline UST was removed and petroleum-impacted soils were excavated by B&C Equipment of Kent, Washington. Samples from the excavated soils were found to exceed Washington State's Model Toxic Control Act's (MTCA) 1991 limits for total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). B&C reported that although moisture was seeping into the bottom of the excavation, groundwater was not encountered. An estimated 125 cubic yards of soil were removed for offsite disposal (AGI, 1999). The excavated soils were thermally treated and recycled for use in asphalt road repair. Subsequent samples collected from the UST excavation confirmed that no petroleum impacted soils remained in the excavation. In a closure report letter, dated March 24, 1992, from Ecology to B&C Equipment, Ecology stated that based on the information provided regarding the tank closure and remediation activities from the petroleum-impacted soil, the requirements for the tank closure had been met.

#### 3.1.2 AGI 1999 Phase I Environmental Assessment

PES reviewed AGI Technologies December 1999 report entitled *Phase I Environmental Assessment Washington State Motor Pool* #7185, 6650 Ellis Avenue South, Seattle, Washington. The purpose of this assessment was to evaluate potential environmental risks associated with the site from hazardous chemicals and other hazardous materials.

The 1999 Phase 1 report (AGI, 1999) indicated that no mention of whether or not the subsurface piping associated with the UST pumping system was removed. Since the building was still in place at the time of the UST removal, no excavation was performed under the building. According to Rick Renaud of KCIA, the UST piping was not removed during the building demolition. The 1999 Phase 1 (AGI, 1999) also indicated that a review of hydrogeological data of the area indicated that the groundwater table under the site was near the base of the former UST, and groundwater could have been impacted.

The 1999 Phase 1 report (AGI, 1999) also identified the presence of tetrachloroethene (PCE) in groundwater samples from monitoring wells (MW-1 and BS-004PZ: Figure 2) located in the northwest corner of the ANGS property. The reported PCE concentrations ranged from non-

detect up to 17 micrograms per liter ( $\mu$ g/L); however the report indicated the PCE concentrations were typically less than the MTCA cleanup level of 5  $\mu$ g/L. The report further concluded that PCE may be migrating through the southwest corner of the proposed lease area from an upgradient source. Although the source of the PCE was not identified, AGI did identify the location of a former dry cleaner approximately 300 feet upgradient of the site (A&T Pump, Section 2.5.3). However, there was no information available that indicated that PCE had been released from the A&T Pump property. Further information regarding PCE in groundwater at the ANGS site is discussed in the next section.

#### 3.2 Air National Guard Station

Extensive environmental investigations of the ANGS site have been conducted from 1993 to date under the Department of Defense Installation Restoration Program (IRP) and the results reported to Ecology. The investigations were conducted to evaluate the nature and extent of potential impacts from the historical ANGS activities at the site. PES reviewed the available documentation to obtain information on the environmental conditions in or immediately adjacent to the proposed easement. This summary is primarily based on our review of the following documents:

- Installation Restoration Program (IRP), Final Phase I Remedial Investigation Report, August 1999 (ERM, 1998);
- Installation Restoration Program, Final Phase II Remedial Investigation Report, August 1999 (ERM, 1999);
- Installation Restoration Program, Management Action Plan, December 2000 (ERM, 2000);
- Installation Restoration Program, Final Basewide Groundwater Assessment Technical Memorandum, September 2001 (ERM, 2001);

The environmental investigations of ANGS have identified two areas that could potentially impact conditions along the proposed easement: a former waste disposal site referred to as the IRP Burial Site and an area with PCE contamination in groundwater. In addition, the available reports have identified a number of historical and active fuel related USTs throughout the ANGS site and an area of trichloroethene (TCE) contaminated groundwater. The USTs and TCE contaminated groundwater area are located sufficiently south of and hydraulically downgradient (groundwater flows to the south/southwest) of the proposed easement, that impacts from these sources to the proposed easement are considered negligible. Descriptions of the IRP Burial Site and the PCE impacted groundwater area are discussed below.

**IRP Burial Site.** The IRP Burial Site is located in the northeast corner of the ANGS and was historically used as a waste disposal site for either burning or burying debris generated at ANGS. The proposed easement crosses through this area as shown on Figure 2. Investigations of the IRP Burial site have included soil gas surveys, geophysical surveys, and soil and groundwater sampling. Soil and groundwater sampling locations within the IRP Burial site close to the proposed easement are shown on Figure 2. Soil and groundwater samples were analyzed for a broad spectrum of contaminants including total petroleum hydrocarbons (TPH), volatile organic

compounds (VOCs), semi-volatile organic compounds (SVOCs), trace metals, polychlorinated biphenyls (PCBs) and radionuclides. The sampling results for the locations shown on Figure 2 indicated the following:

- Soil sampling results indicated that the constituent concentrations were either not
  detected above laboratory reporting limits (PCBs, TPH, and VOCs) or if detected, the
  concentrations were below project screening goals (PSGs) based on MTCA Method A,
  Method B, or site-specific background concentrations (trace metals and radionuclides).
  One SVOC was detected (di-n-butylphthalate) in several of the soil samples, but its
  presence was attributed to possible laboratory contamination of the samples. Several of
  the borings did encounter buried debris (e.g., broken glass, and pieces of bricks); and
- Groundwater sampling results indicated that the constituent concentrations were either not detected above laboratory reporting limits or if detected, the concentrations were below PSGs based on MTCA Method A, Method B, federal maximum contaminant levels, or site-specific background concentrations. Low levels of 1,1,1-trichloroethane (TCA) and total xylenes (2 μg/L and 7 μg/L, respectively) were detected in the Geoprobe (GP-22) adjacent to the northwest corner of the IRP Burial site, but these concentrations are well below the PSGs established for the site. No VOCs have been detected in monitoring well MW-2, which is located within the proposed easement and the IRP Burial Site (Figure 2).

ANG categorized the IRP Burial Site as containing contamination below action levels and that no further action was required as determined by the ANG (ERM, 2000)

PCE Impacted Groundwater Area. Previous investigations at the ANGS identified a area containing PCE in groundwater in the northwest corner of the ANGS, adjacent to the proposed easement entrance. Groundwater samples from wells MW-1 and BS-004PZ (Figure 2) had historically contained PCE at concentrations up to 17  $\mu$ g/L exceeding the cleanup level of 5  $\mu$ g/L. Low concentrations (i.e., below cleanup levels) of toluene, TCA, and 1,1-dichloroethane were occasionally detected in samples from one of these wells. PCE concentrations exceeded the PSG in samples from BS-004PZ three times and once from samples from MW-1 ruing the period of September 1996 through May 1999. PCE was not detected above the PSG in samples from these wells from May 1999 through May 2000. According to Rob Leet of ERM (consultant for ANGS), these wells have not been sampled since May 2000 (personal communication July 2, 2004).

The investigations did not identify a source of the PCE. However, given the location of the wells on the upgradient property boundary and a southward groundwater flow direction. An upgradient, off-site source was suggested. As indicated in discussion of the Motor Pool site, historical city directories indicated that the business at the A&T Pump property was occupied by Georgetown Cleaners in 1983. The presence of PCE has been associated with dry cleaning operations, however, no information was found in the neither Ecology's files, the AGI, or ANGS reports indicating the source of the PCE.

# 3.3 Great Western Soil Conditioning

PES did not identify any previous investigations regarding the portion of the proposed easement within this leasehold.

#### 3.4 Boeing Company

PES did not identify any previous investigations regarding the portion of the proposed easement within this leasehold.

#### 4.0 ENVIRONMENTAL RECORDS REVIEW

PES subcontracted with Environmental Data Resources, Inc. (EDR), a national file research firm, to provide a standard computerized search of Federal and State environmental databases for the site and properties within the ASTM search radii as modified for this report (see Section 1.2). The EDR report dated May 24, 2004 is included as Appendix C. According to the EDR report, three of the leaseholds that comprise the proposed easement appeared on the searched databases. These sites, the former Washington State Motor Pool, ANGS, and FAMCO Transport (currently GWSC) are discussed in Section 4.3. The search results are summarized below and additional information can be found in the EDR report (Appendix C). Based on PES' review of the EDR report, additional information for the proposed easement and several nearby sites was reviewed. The findings of the review are included below.

### 4.1 Environmental Liens

Based on the review of the EDR database search results, there is no known Federal Superfund (National Priority List) liens associated with the proposed easement.

#### 4.2 Standard Environmental Record Sources Review

The discussion presented in this section is based on available information provided by government agencies and various databases. The EDR report contains listings of sites located within the modified ASTM search radii, which are specified in the ASTM E 1527-00 standard. The database information was obtained from computerized databases of Federal, State and local records. Descriptions of the lists reviewed are presented in Section 4.3. Based upon the information obtained from the EDR report and regulatory databases, selected sites within the project specific search radii, were chosen for additional file review. The results of the additional agency file review are also discussed.

#### 4.3 Database Review

The following ASTM-standard and ASTM-supplemental regulatory agency databases were searched within the project specific radii and reported in the EDR report (Appendix C). An explanation of the information maintained in these databases is included in the EDR report.

- U.S. Environmental Protection Agency's (EPA's) Comprehensive Environmental Response Compensation, and Liability Information System (CERCLIS);
- U.S. EPA's RCRA Corrective Action Sites (CORRACTS);
- U.S. EPA's CERCLIS No Further Remedial Action Planned (NFRAP);
- U.S. EPA's CERCLA National Priority List (NPL);
- U.S. EPA's Emergency Response Notification System (ERNS);
- U.S. EPA's Resource Conservation and Recovery Act (RCRA) Program information;
- Washington Department of Ecology's (Ecology's) underground storage tank (UST) registration and the leaking UST (LUST) databases;
- Ecology's confirmed and suspected contaminants sites list (CSCSL) and hazardous sites list (HSL);
- Ecology's Solid Waste Facilities/Landfill List (SWF/LF);
- U.S. EPA Resource Conservation and Recovery Information System (RCRIS),
   Treatment, Storage, or Disposal (TSD) facilities, and Small Quantity and Large Quantity
   Generators (SQG and LQG) of hazardous waste;

# 4.3.1 <u>Federal ASTM Standard Databases</u>

The Federal databases searched and reported on in the EDR report are discussed below. Sites identified in each database are listed and discussed briefly. Sites requiring additional review are discussed below.

**CERCLIS-NFRAP.** The CERCLIS-NFRAP database is a listing of sites that have been removed from CERCLIS. NFRAP sites may be sites that following an initial investigation, no contamination was found, or removed quickly without the need to list the site on the NPL database. The database identified 1 site adjacent to the proposed easement:

• ANGS, 6736 Ellis Avenue South. Refer to Section 3.2 for information regarding previous investigations at this site.

RCRIS SQG. The RCRIS database listed 4 sites identified as small quantity generators (SQG), within ¼ mile of the subject site. PES identified the following 4 SQG sites in the immediate vicinity or part of the proposed easement:

 Washington State Motor Pool, 6650 Ellis Avenue South. According to the previous Phase I report (AGI, 1999), the facility generated waste liquids associated with vehicle maintenance, including: unused and waste oil, unused and waste antifreeze, and cleaning solvents. The waste liquids were stored inside the building in 55-gallon drums and shipped offsite for disposal by at least one vendor, Safety Kleen.

- **FAMCO Transport, 6640 Ellis Avenue South.** According to the 1999 Phase I report (AGI, 1999), the GWSC site was occupied until March 1994 by FAMCO Transport, a hazardous waste transporter. AGI reported that FAMCO handled a variety of solvents, paints, and corrosive liquids, including spent electroplating solutions. AGI indicated that Ecology conducted a compliance inspection of the vacant FAMCO facility on May 18, 1994 in response to a complaint that the company was not properly storing waste oil and anti-freeze. The inspection resulted in a number of violations including: improper labeling of waste containers, storing accumulated waste longer the maximum 90 days allowed under the Resource Recovery and Conservation Act (RCRA), and drums containing hazardous waste not properly covered. The AGI report indicated that Ecology noted the drums were located at the east end of the building along the property's fence-line. The exact location of these could not be determined, however, the proposed easement is located south of the FAMCO building suggesting that these drums were not stored within the proposed easement. The report concluded that the site was not paved during FAMCO's occupancy and the potential for releases of the improperly stored waste to the site soils and possibly groundwater was considered high. PES did not find any additional information in Ecology's files regarding the removal and disposal of FAMCO's waste drums.
- KCIA Maintenance, 6518 Ellis Avenue South. Although no specific information was found in agency databases regarding the types hazardous waste generated at the KCIA Maintenance Facility, the most likely waste streams associated with vehicle and airport maintenance would be waste oil, waste antifreeze, paints and paint thinners, and solvents.
- ANGS, 6736 Ellis Avenue South. Refer to Section 3.2 for information regarding previous investigations at this site.

#### 4.3.2 State ASTM Standard Databases

The state ASTM Standard databases contained entries for the subject site and/or nearby sites with the modified search radii. All sites identified in the databases are listed below.

**LUST.** The Leaking Underground Storage Tank (LUST) database is maintained by Ecology and contains a list of reported LUST incidents. The LUST database listed three entries in the vicinity of the proposed easement. One LUST was recorded for the proposed easement.

- Washington State Motor Pool. Information regarding a former UST was found in agency databases. The UST was removed from the site in 1991. Refer to Section 3.1 for more information on the former UST.
- **A&T Pump.** Information was found in agency's files regarding a former LUST at this site. This site is located approximately 200 feet northwest of the entrance to the proposed easement on Ellis Avenue South. According to information found in agency files the site was also listed as T&W Pumps in historical city directories. Information found in

Ecology's files indicated that a notice of release from the site's USTs was recorded in August 1992. The USTs were installed in the 1940's and reported as having been removed in 1985. Ecology's files contained notes indicating soil contamination at the property at concentrations of 125 mg/kg for gasoline, 270 mg/kg for diesel, and 12,000 mg/kg for oil. AGI (1999) indicated that Ecology's files did not contain any information regarding the sampling procedures or subsequent laboratory analysis, only the results were noted.

PES found additional information regarding A&T pump during the Ecology file review. A letter, dated December 17, 2001, from Ecology to the A&T property owner, Ms. Olga Tarabochia, was found in Ecology's files. In summary, the letter informed Ms. Tarabochia that due to changes in MTCA cleanup levels, the petroleum contamination left in the UST excavation was found to be below cleanup levels in place at the time of the letter. Ecology upgraded the status of the A&T property to "Reported Cleaned Up", without performing a detailed review. The upgraded status made the property eligible for Ecology Volunteer Cleanup Program (VCP), which would allow the property owner to move forward with a proposal and plan to complete the cleanup. The letter stated that after a successful cleanup, Ecology would issue a "No Further Action" (NFA) letter, and that a NFA status would prove useful for future transactions of the property. No information was available at Ecology regarding the A&T Pump properties involvement as a VCP site.

- KCIA Maintenance. The KCIA Maintenance Facility is located approximately 170 feet north of the proposed easement. According to information found in Ecology's files and a previous site assessment (AGI, 1999), KCIA removed two 1,000-gallon gasoline USTs in October 1992. The two USTs were located under the asphalt parking lot/facility driveway at the west end of the building adjacent to Ellis Avenue South. Soil analyzed during the excavation indicated the presence of TPH-G at concentrations ranging from 500 to 10,000 (mg/kg). Although the impacted soil was removed from the excavation, water samples taken from the excavation indicated concentrations of TPH-G were 100 milligrams per liter (mg/L) exceeding Washington State cleanup levels of 1 mg/L. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected at levels exceeding Washington State cleanup levels. The area was backfilled without any additional action to address the contaminated water in the excavation. Although groundwater in the excavation exceeded Washington State cleanup levels the results may not be indicative of groundwater in the immediate vicinity of the former USTs. A letter to Ecology from KCIA, dated September 1, 1998 indicated that a UST permanent closure report was submitted to Ecology in 1993. No additional information was found in Ecology's files regarding Ecology's response to the closure report.
- Georgetown Steam Plant. According the EDR report, the GTSP has had four USTs removed from the site in approximately 1989. All the USTs were listed as heating fuel tanks. According to a 2000 preliminary site assessment (Bridgeport Group, 2000), three of these tanks were located at the southwest corner of the building. The EDR report indicated the status of the site as having been cleaned up. The only information found in Ecology's files was a 1996 closure and site assessment notice for the removal of one 270-gallon diesel UST. The Ecology file did not indicate the location of the diesel UST.

Due to the location of the USTs from the proposed easement and the information indicating that cleanup and closure had been completed, the former USTs at the GTSP most likely did not have any potential to impact the proposed easement.

**UST.** The Underground Storage Tank (UST) database is maintained by Ecology and contains a list of registered USTs. No USTs were recorded for the proposed easement. The UST database listed 5 sites in the immediate vicinity of the proposed easement:

- Washington State Motor Pool, (refer to LUST Section);
- **A&T Pump**, (refer to LUST Section);
- KCIA Maintenance, (refer to LUST Section);
- ANGS. This site was listed as having eight USTs containing unleaded gasoline, diesel fuel, and waste oil. Four tanks were removed in 1983 and the remaining three were removed in 1995. These USTS were located approximately 100 feet south of the proposed easement. Due to the location of the former USTs and the southwesterly direction of groundwater flowing under the ANGS property away from the proposed easement, the potential for impacts to the easement are considered to be low.
- Georgetown Steam Plant, (refer to LUST Section);
- FAA AFSS, 6526 Ellis Avenue South. According to information found in Ecology's files, this site had a 2,000 gallon diesel fuel UST removed in October 1998. The fuel was used by the facility to operate an emergency generator associated with the operation of the FAA AFSS. Prior to removal of the UST, a 1,000-gallon aboveground storage tank was installed to replace the facility's fuel storage needs. During the removal of the UST, soil samples were collected from both the excavation base and sidewalls as well as one sample collected from the soil stockpile. The laboratory analytical results for the soil samples indicated concentrations of TPH at levels below MTCA's cleanup level of 200 milligrams per kilogram (mg/kg). The excavation was backfilled with the excavated soil and imported fill material.

# 4.3.3 State or Local ASTM Supplemental Databases

The ASTM supplemental databases are not part of the required database search list in the ASTM standard. These supplemental databases are reported in the EDR report to provide a more robust search of possible sources of contaminated site information in Washington.

**CSCSL.** The Confirmed and Suspected Contaminated Sites List (CSCSL) System is maintained by Ecology, and records information regarding sites that may be of environmental interest and includes sites with known and suspected contamination. The CSCSL database listed the 1 site within 0.25-mile of the subject site.

• Air National Guard Station. Refer to the previous investigations discussion in Section 3.2 for information regarding this site.

**HSL.** The Hazardous Sites List (HSL), a subset of the CSCSL database, is maintained by Ecology and includes sites that have been assessed and ranked using the Washington Ranking Method (WARM). The HSL database did not contain properties within approximately 0.25 mile of the subject site.

**VCP.** The Washington Voluntary Cleanup Program (VCP) database is maintained by Ecology and includes sites that are participating in a voluntary investigation and cleanup action. The VCP database did not contain properties within approximately 0.25 mile of the subject site.

# 5.0 PROPOSED EASEMENT AND SURROUNDING AREA RECONNAISSANCE

On June 2, 2004, PES personnel visited the site and surrounding area to observe current land use and site conditions, and to verify details noted on the aerial photographs. PES examined the site by walking the proposed easement and inspecting properties adjacent to the proposed easement. PES was accompanied by representatives from KCIA, ANGS, and Boeing. The results of the inspection and reconnaissance are detailed in the following sections.

# 5.1 Proposed Easement Leasehold Properties

PES conducted a walking reconnaissance of the properties on June 2, 2004 along the proposed easement alignment. PES was accompanied by John Llewellyn of KCIA at all four sites. Representatives from Boeing, Mr. Daniel McCormack and Mr. Richard White, accompanied PES on the Boeing property; and a representative of ANGS, Chief Master Sergeant (CMSgt.) Leo M. Heider, accompanied PES during the inspection of the ANGS property. Portions of the following four properties are located within the proposed easement.

# 5.1.1 Former Washington State Motor Pool

The former, approximately 6,600 sq. ft, Motor Pool facility building was constructed in the early 1970's and occupied by Washington State until from 1975 to 1999. The building remained vacant until it was demolished in 2001. The facility was primarily used for the routine maintenance of light trucks and passengers cars used by Washington State employees.

During PES' site visit, the motor pool property was covered mostly with asphalt. However, the location of the former building was apparent from the dirt and gravel surface. The shape of the gravel and dirt area was similar to the building shape observed in historical aerial photographs (Appendix B) and as shown on Figure 2. A portion of this gravel area was most likely the location of the former UST. PES did not observe evidence of the former UST piping system referred to in the 1999 Phase I report (AGI, 1999). In addition, PES observed the facility's still intact oil/water separator located on the north side of the former building. During the site visit, PES opened the access hatch to the main OWS chamber. Although slightly turbid water was observed in the chamber, no oil sheen was observed on the surface of the water.

According to the 1999 Phase I, (AGI, 1999), a vehicle hoist was located at the eastern bay of the facility's three bay doors. The piping for the hoist had originally been installed underground, but had been removed and replaced with an aboveground hoist. No evidence of the hoist was observed during the site visit.

#### 5.1.2 Air National Guard Station

PES was accompanied by Chief Master Sergeant (CMSgt.) Leo Heider, 143<sup>rd</sup> Combat Communications Squadron, ANGS, and John Llewellyn, KCIA. The area of the proposed easement is a small grassy parcel, approximately 2,500 square feet (sq. ft.) in size, located at the northeast corner of the ANGS property (Figure 2). Located immediately south of and adjacent to the grassy area is a parking area for military trucks. This grassy is located over the IRP Burial Site (see Section 3.2), which was reportedly used for the disposal (burial and possibly burning) of miscellaneous waste materials generated at the ANGS facility (Figure 2). PES did not observe any indications of waste disposal in this area or distressed vegetation that resulted from the presence of the IRP Burial Site. No evidence of environmental impacts was observed in this area during the site visit. PES also observed a building identified as Building 203 located at the northwest corner of the ANGS property immediately south of and adjacent to the proposed easement (Figure 2). This building is used for storage of paint and paint related materials according to previous site assessments. PES did not observe any paint stains or evidence of spillage in the area of this building.

### 5.1.3 Great Western Soil Conditioning

PES observed this property on foot from the public right-of-way. The activities at the GWSC site appeared to be mainly maintenance and repair of GWSC's fleet of tractor-trailer trucks. In addition, several trucks, uncoupled trailers, and miscellaneous equipment were parked along the proposed easement. The property consisted of one large building constructed of aluminum siding and roofing. PES observed employees driving trucks into the large parking area to the east and north of the building. According Mr. Llewellyn, KCIA owns a portion of the parking lot and leases the property to GWSC. PES did not conduct a site inspection of the interior of the facility and only casually observed at a distance the above activities during the visit. Since the company apparently performs maintenance on the trucks, an assumption can be made that the company handles waste oil and fuel, and possibly waste oil filters, brake fluid, etc. PES observed minor oil staining in the truck parking areas at the east side of the building. In addition, facility personnel were washing trucks into what appeared to be a below-grade oil/water separator at the north end of the building. PES could not closely observe the facility parking/storage area at the southend of the building from the public right-of-way.

#### 5.1.4 Boeing

According to Boeing representatives Mr. Richard White and Mr. Daniel McCormack, the proposed parking lot area is used by Boeing primarily as a "bone yard" for storing miscellaneous maintenance and construction supplies and equipment. PES observed the area to be covered in asphalt. PES observed a part of an airplane fuselage, concrete blocks, large gauge wire spools, and miscellaneous equipment used by Boeing for facility operations. Located immediately

southwest of this area adjacent to the ANGS fence-line was a large equipment storage shed (Figure 2). The structure had an aluminum roof and walls on three sides. The eastern side was a locked chain-link fence. Mr. McCormack informed PES that the storage shed was used by the maintenance crew. Located at the northeast corner of the storage area was a small personnel trailer used by the employees. Inside the trailer was a flammable-liquids locker used by the maintenance crew.

In the approximate center of the proposed easement was a treatment system used by Boeing maintenance for the processing of polychlorinated biphenyl's (PCBs) contaminated slurry wastewater from concrete pad repairs and cleaning and maintenance of Boeing's storm water catch basin system. According Mr. McCormack, Boeing routinely repairs the sections of exterior concrete sections throughout the Boeing property. These sections are joined to each other with a rubberized sealant that wears over time and requires routine maintenance. Historically the sealant was known to consist of materials containing PCBs, therefore, Boeing has instituted a method for separating the liquid from the concrete cutting slurry and catch-basin cleaning. The liquefied slurry is first pumped into a geo-membrane filter over a dumpster sealed to prevent leakage. The slurry water drains into the dumpster and is conveyed via a small pump to a cone-shaped tank. The water is then treated with a chemical floucculant to settle out any remaining solids. The treated supernatant is pumped through an activated carbon filter before being transferred via a pump truck to Boeing's on-site wastewater treatment system located elsewhere in the plant. The treated water is then discharged to the King County Metro sewer system. The sludge from the precipitation process is transferred to the geo-membrane filter and de-watered. The de-watered solids are transferred to a roll-off box and covered with a tarp awaiting transport and disposal to a hazardous waste landfill in Arlington, Oregon. According to Mr. McCormack the concentration of PCBs in the crack sealant has ranged from 100 to 200 parts per million. The PCB concentration in the treated water is non-detect. Mr. McCormack believed that the PCB treatment system generates approximately 7 yards of de-watered sediments and 25,000-30,000 gallons of treated water during the dry season (April-September).

PES observed the entire treatment area to be fully contained with a concrete berm. The berm was sealed at the ground surface to contain any liquids in the event of a spill. In addition, PES noted that a few cracks in the asphalt surface inside the bermed area were sealed to prevent any potential spillage from infiltrating the subsurface soils. Mr. McCormack informed PES that no major spills have occurred since the treatment system was installed and became operational in 2003.

#### 5.2 Surrounding Areas

In addition to the proposed easement properties, PES observed properties in the vicinity of the proposed easement that could potentially cause environmental impacts to the proposed easement. This included sites listed in one or more of the environmental databases (see Section 3.3). Properties observed from the public right of way included the FAA Automated Flight Services Station, KCIA's Maintenance Facility, the former A&T Pump gasoline station, and Seattle City Light's Georgetown Steam Plant.

# 5.2.1 FAA Automated Flight Services System

The Federal Aviation Administration Automated Flight Services System (FAA AFSS), located at 6526 Ellis Avenue South is located approximately 50 feet north of the proposed easement. PES observed this property on foot from the public right-of-way and the former Motor Pool property. This site contains one building and an asphalt parking lot on the west and south sides of the building. The south parking lot has a chain-link fence that separates the property from the former Motor Pool property. No indication of any potential environmental impacts to the proposed alignment was observed at the FAA AFSS site.

#### 5.2.2 KCIA Maintenance Facility

The KCIA Maintenance Facility is located approximately 200 feet north of the proposed easement. The facility is comprised of several buildings used for the airport's maintenance operations, including the maintenance and repair of the facility's fleet of trucks and automobiles. PES observed this site from the public right-of-way. Parking spaces were observed on the west and south sides of the building. The north and east sides portions of the site were bordered by a chain-link fence. PES observed several smaller buildings north of the main facility building. Activities observed in the northern area appeared to facility truck maintenance and a paint shop.

#### 5.2.3 **A&T Pump**

The former A&T Pump property is located at the northwest corner of Ellis Avenue South and South Warsaw Street approximately 200 feet northwest of the western boundary of the proposed easement. During the site visit, PES observed an unoccupied structure had what appeared to be an old gas station awning and former gasoline pump island. At the west side of the building, located behind a black plastic fencing were two truck containers. No pumps were observed on the property. According to the Ecology file review and the previous ANGS reports, in addition to operating as a gasoline station, this site was also a former dry cleaner. No evidence of any environmental impacts was observed during the site visit.

#### 5.2.4 Georgetown Steam Plant

The Georgetown Steam Plant (GTSP), which is owned by Settle City Light, is located east Great Western Soil Conditioning and Boeing. The steam plant operated from the early 1900s until 1964 and during this period used both coal and oil for its fuel source. During the plants operational life, a cooling water flume conveyed water from the plant to the nearby Duwamish River. Subsequent to termination of plant operations, the building has been designated as a historic landmark and is currently operated by a non-profit organization as an industrial museum. The site has had extensive environmental site investigations and remediation conducted at the site since the 1980s, due, in part, to the presence of polynuclear hydrocarbons (PAHs) and PCBs found in sediments at Slip No. 4 on the Duwamish Waterway. A summary of the investigations is provided in "give the report name" prepared for Seattle City Light. These investigations were conducted primarily at source areas located at the north and south ends of the GTSP, distant from the proposed easement where it terminates at the Steam Plant's western property boundary. Review of the investigations results did not indicate any impacts on or immediately adjacent to

the proposed easement. Based upon the visual observations made by PES during the area reconnaissance, no additional environmental concerns besides those discussed in above were noted.

# 5.3 Proposed Easement Condition and Use

#### 5.3.1 PCBs/Pesticides/Herbicides

No electrical transformers were identified on the proposed easement during the inspection of the facility.

There was no evidence of significant pesticide or herbicide use on the proposed easement. No strained vegetation was noted. The proper use and application of any landscaping chemicals at the site is not considered to be a significant environmental concern.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

At the request of King County, PES conducted a Phase I ESA of the proposed Georgetown Steam Plant Permanent Access Easement, which is approximately 1-acre in size and comprised of portions of four leasehold properties: the former Washington State Motor Pool, Air National Guard Station, Great Western Soil Conditioning, and the Boeing Company. The proposed easement is identified on Figure 2.

PES' review of regulatory agency databases revealed the confirmed presence of off-site sources of hazardous materials releases that pose a potential environmental concern to the subject property. Three of the leaseholds associated with the proposed easement, the former Washington State Motor Pool, former FAMCO Transport, and ANGS, were listed in federal and state environmental databases within the project specific search criteria. Adjacent properties within the reduced ASTM-specified search radii were also included in one or more databases. Historical research and previous investigations combined with the agency database searches indicate the following potential environmental conditions exist for the proposed easement:

Washington State Motor Pool - Information regarding the former Washington State Motor Pool indicated that the facility's gasoline UST and associated impacted soils from the UST excavation was removed in 1992 and Ecology issued a letter indicating closure requirements had been achieved. However, no information was found regarding whether or not he underground piping associated with fuel pump was removed. In addition, no information was found regarding the facility's conversion from an underground vehicle hoist to an aboveground unit. Given the close proximity of these structures to the proposed easement, there is a low potential that any leaks from the UST conveyance pipe and/or hoist reservoir could have impacted soil within the proposed easement.

**Great Western Soil Conditioning** - Information regarding the former FAMCO Transport facility (former tenant of the GWSC site) indicated several violations imposed by Ecology for improper storage, handling, and labeling of liquid waste drums. However, information

in previous site assessments and Ecology files did not indicate if any of these waste materials were ever released to the environment and the available information suggests these drums were not stored in the area to be occupied by the proposed easement. PES did not review any information that indicated the proposed easement has been impacted by operations at the GWSC site.

Boeing Company- No information regarding the Boeing portion of the proposed easement was found in Ecology's files. However, during the site visit, PES observed a treatment system used to process concrete slurry and catch-basin sediments from Boeing's ongoing maintenance program. The treatment system is located in the approximate center of the proposed easement parking lot. Employees interviewed during the site visit indicated that the PCB treatment system, online since 2003, was fully contained to prevent releases to the environment. No obvious staining was observed during the site visit and the treatment system and containment berm appeared to be clean and well maintained. PES did not find any information that indicated the proposed easement has been impacted by Boeing operations.

ANGS – Information was found regarding the historical presence of PCE in groundwater monitoring wells at the northwest corner of the site. The source of the PCE has never been identified, however, the former Georgetown Cleaners located approximately 300 feet northwest of the ANGS property. According to previous site assessments, PCE was not detected in the nearby monitoring wells during the most recent sampling event (May 2000). Information regarding the former IRP Burial Site located at the north end of the ANGS site along the proposed easement did not indicate the presence of any documented impacts to soil or groundwater within the proposed easement.

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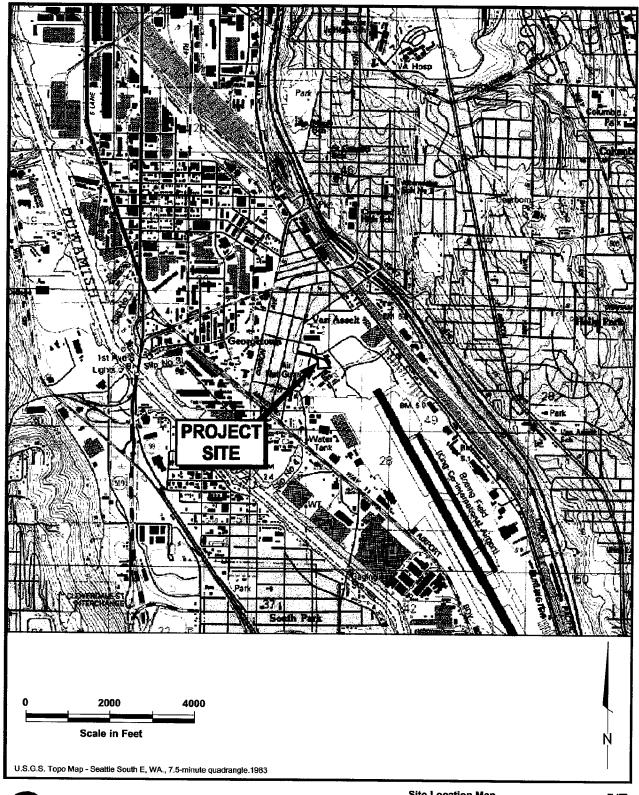
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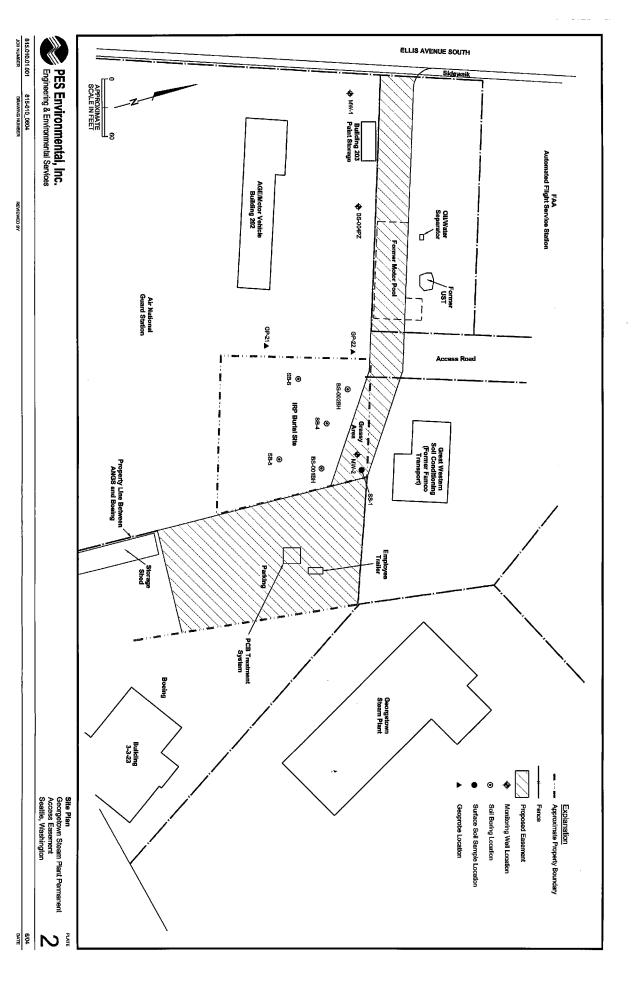
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Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

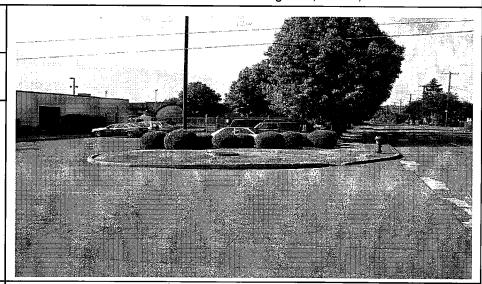
Russell Stolsen

#### Direction:

South

#### Comments:

Automated Air Services parking lot from South Elizabeth Street. Ellis Ave. on right, WSDOT and WANG sites in distance.



# Photographer:

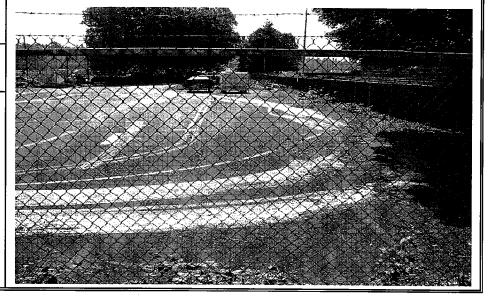
Russell Stolsen

#### Direction:

East

#### Comments:

WSDOT Motor Pool site from Ellis Avenue South.



Client: King County Prosecutor

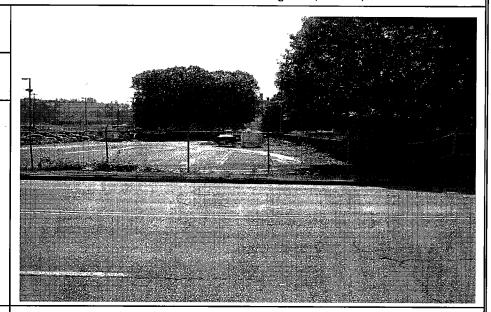
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer: Russell Stolsen

**Direction:**East

#### Comments:

WSDOT Motor Pool site from Ellis Avenue South.



# Photographer:

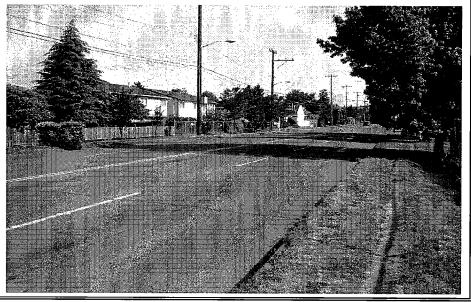
Russell Stolsen

#### Direction:

Northwest

#### Comments:

Residential neighborhood west of WSDOT Motor Pool site along Ellis Avenue.



Client: King County Prosecutor

**Project Number: 815.010.01** Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

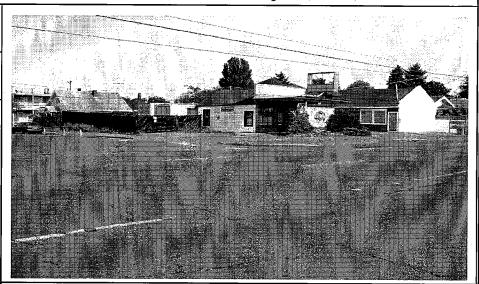
# Photographer:

Russell Stolsen

# **Direction:**Northwest

#### Comments:

Former A & T service station at corner of Ellis Ave. South and South Elizabeth Street.



# Photographer:

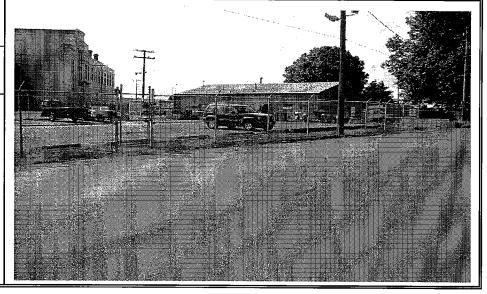
Russell Stolsen

#### Direction:

Southeast

#### Comments:

Great NW Soil
Conditioning
building in
background,
Georgetown Steam
Plant on left.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

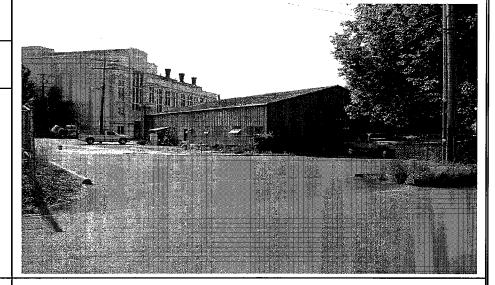
Russell Stolsen

# Direction:

Southeast

# Comments:

Great NW Soil
Conditioning
building.
Georgetown Steam
Plant on left.



# Photographer:

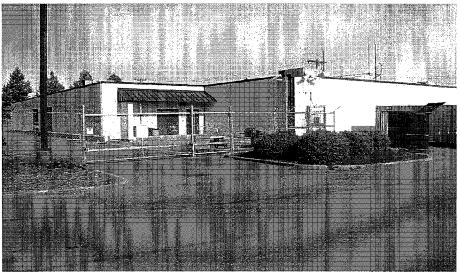
Russell Stolsen

#### Direction:

West

# Comments:

Automated Flight Services building from unnamed from South Elizabeth St. roadway.



Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

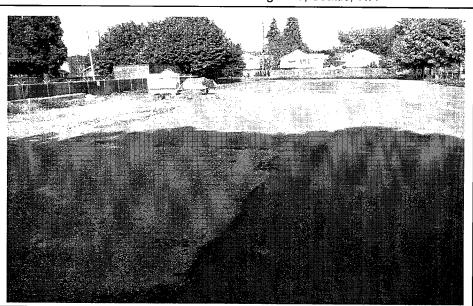
Russell Stolsen

#### Direction:

West

#### Comments:

Former WSDOT.
Motor Pool site.
Gravelly area is
former building
footprint. Former
UST was located
approximately in the
gravel at the leftcenter of photo.



# Photographer:

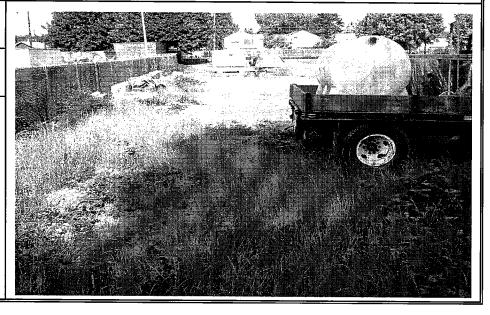
Russell Stolsen

# Direction:

West

#### Comments:

Former WSDOT
Motor Pool site.
Former building was
located in gravelly
area in background.
Vehicle is from a
company using the
site for parking
vehicles.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

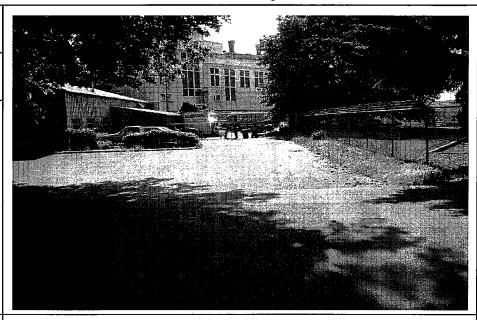
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer: Russell Stolsen

Direction: East

# Comments:

Driveway south of Great NW Soil Conditioning. WANG property to right of fence, Steam Plant in background.



# Photographer:

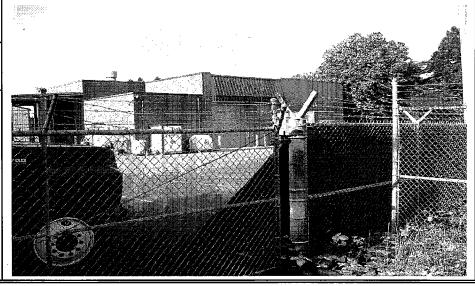
Russell Stolsen

#### Direction:

Southwest

#### Comments:

Washington Air National Guard maintenance facility from driveway adjacent to former WSDOT Motor Pool.



Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

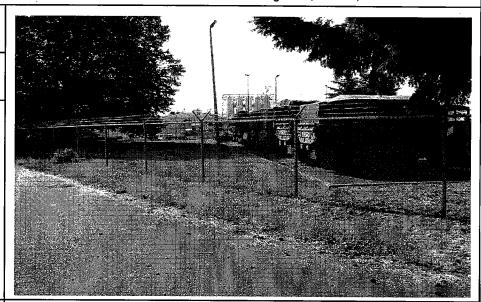
Russell Stolsen

# Direction:

Southeast

## Comments:

WANG property and trucks from Great NW Soil Conditioning property Boeing structures in distance.



# Photographer:

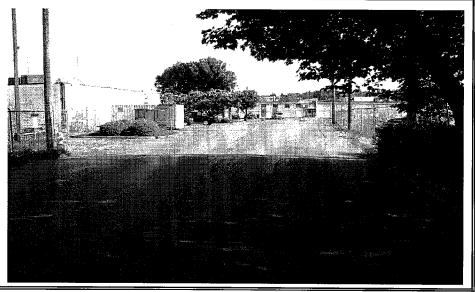
Russell Stolsen

## Direction:

North

## Comments:

Automated Flight Services on left. KCIA Maintenance in distance. Viewing from unnamed roadway south of South Elizabeth Street.



Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

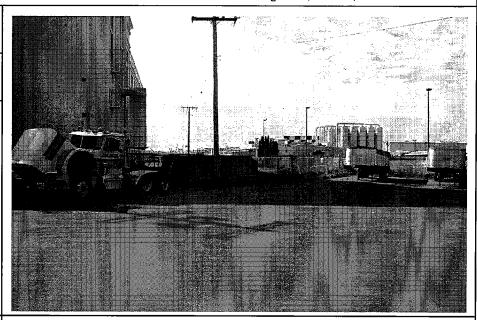
Russell Stolsen

### Direction:

South

# Comments:

Viewing from Great NW Soil's parking area. Steam Plant on left, Boeing property and buildings to the south.



# Photographer:

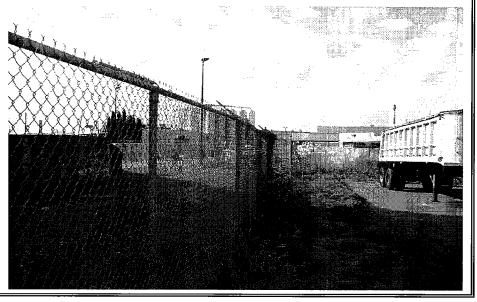
Russell Stolsen

## Direction:

South

### Comments:

Viewing from Great NW Soil parking lot along Steam Plant property on left. Boeing in distance beyond fence to the south.



Client: King County Prosecutor

**Project Number: 815.010.01** Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

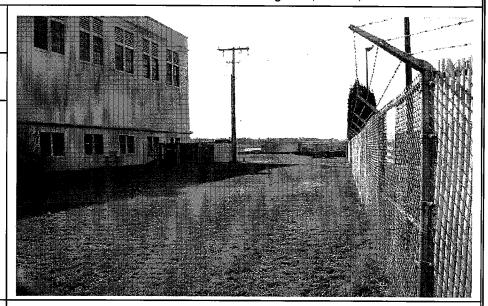
Russell Stolsen

## Direction:

South

### Comments:

Viewing from Great Western, Boeing, and Steam Plant fence connections. Steam Plant on left.



# Photographer:

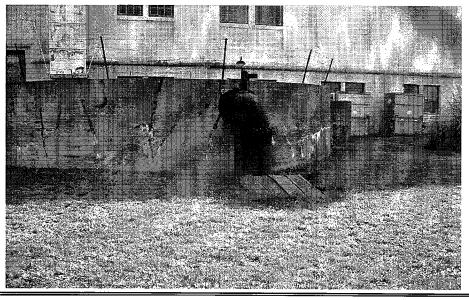
Russell Stolsen

## Direction:

East

## Comments:

Viewing from Great NW Soil to water reservoir at Steam Plant.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

Russell Stolsen

### Direction:

South

# Comments:

Viewing from Great NW Soil. Boeing property "bone yard" south of Great NW Soil.



# Photographer:

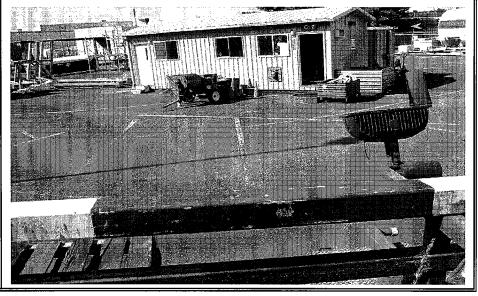
Russell Stolsen

## Direction:

Southwest

### Comments:

Boeing employee break room in "bone yard". Located to the left in the distance is the catch basin cleanout PCB treatment system.



Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

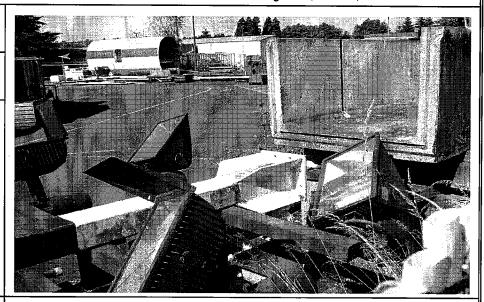
Russell Stolsen

## Direction:

Southwest

### Comments:

Boeing property "bone yard".



# Photographer:

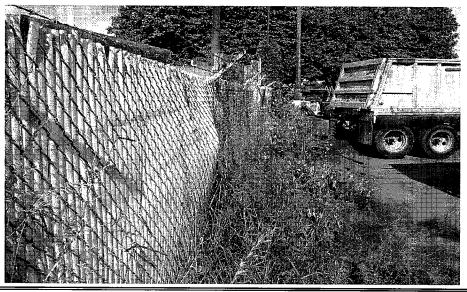
Russell Stolsen

## Direction:

West

### Comments:

Great NW Soil
Conditioning
property. Viewing
from intersection of
the Boeing, Steam
Plant, and Great
NW Soil's fences.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

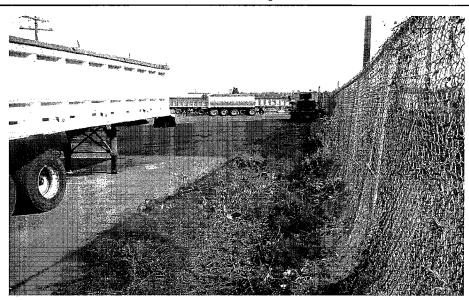
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer: Russell Stolsen

**Direction:**North

# Comments:

Great NW Soil
Conditioning
parking lot. Steam
Plant property on
right.
Viewing from
intersection of the
Boeing, Steam
Plant, and Great
NW Soil's fences.



# Photographer:

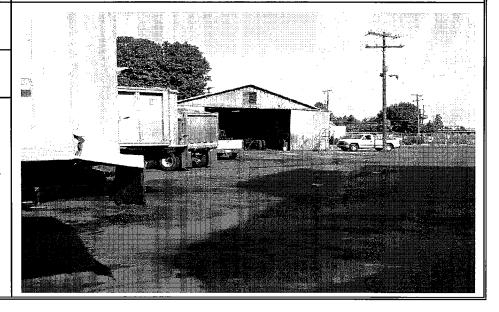
Russell Stolsen

## Direction:

West

### Comments:

Great NW Soil
Conditioning truck
maintenance facility.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

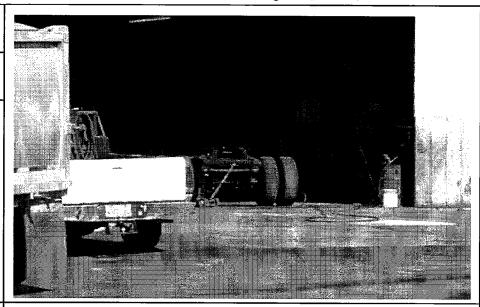
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

Photographer: Russell Stolsen

**Direction:** West

Comments:

Great NW Soil Conditioning truck maintenance facility.



Photographer:

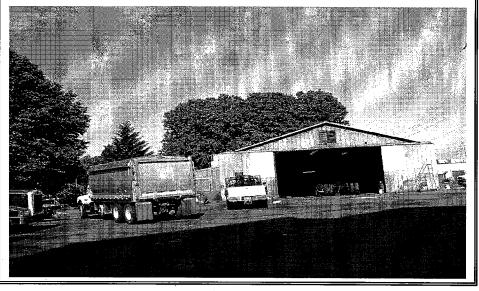
Russell Stolsen

Direction:

West

Comments:

Great NW Soil Conditioning truck maintenance facility.



Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

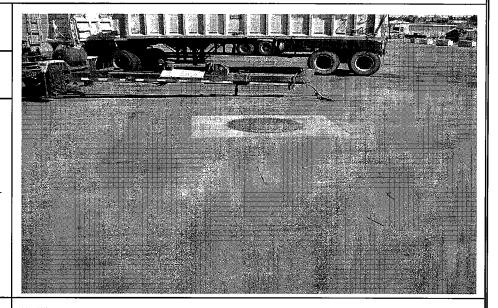
Russell Stolsen

### Direction:

North

# Comments:

Oil/water separator at Great NW Soil Conditioning truck maintenance facility.



# Photographer:

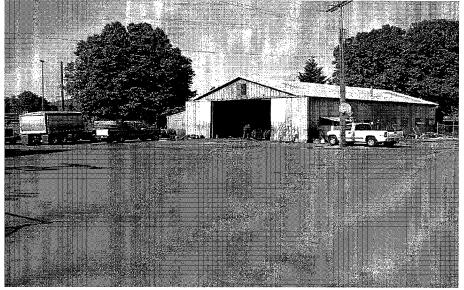
Russell Stolsen

## Direction:

Southwest

### Comments:

Great NW Soil Conditioning truck maintenance facility.



Client: King County Prosecutor

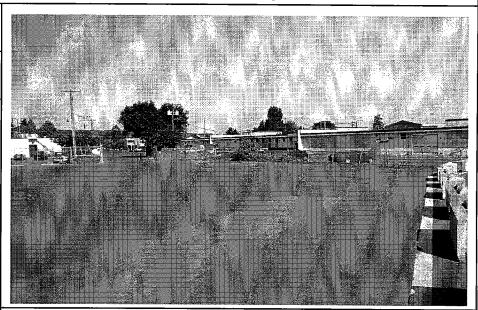
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer: Russell Stolsen

**Direction:**Northwest

### Comments:

Parking lot/driveway from South Elizabeth Street. KCIA Maintenance facility in right background. Automated Flight Services in left background.

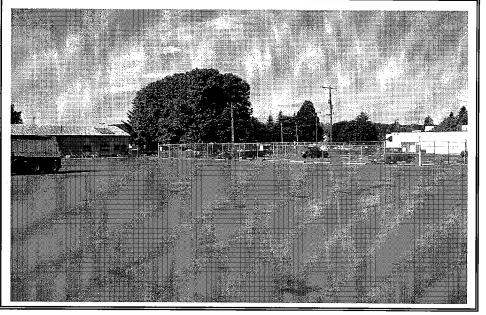


# Photographer: Russell Stolsen

Direction:

# Southwest Comments:

Viewing from parking lot at end of South Elizabeth St. to Great NW Soil Conditioning truck maintenance facility in left background and Automated Flight Services on right.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

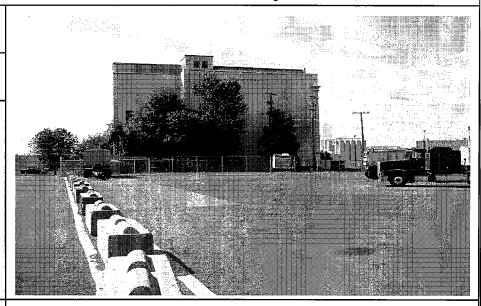
Russell Stolsen

### Direction:

South

### Comments:

Steam Plant from end of South Elizabeth Street. Boeing facility buildings in right background.



# Photographer:

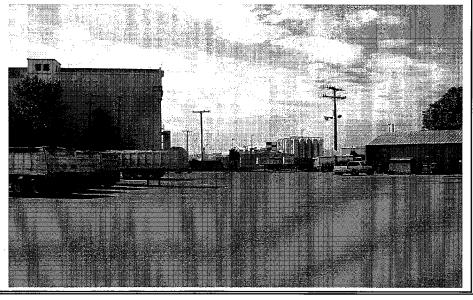
Russell Stolsen

## Direction:

South

### Comments:

Steam Plant from end of South Elizabeth Street. Boeing facility buildings in right center. Great NW Soil facility on right.



Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

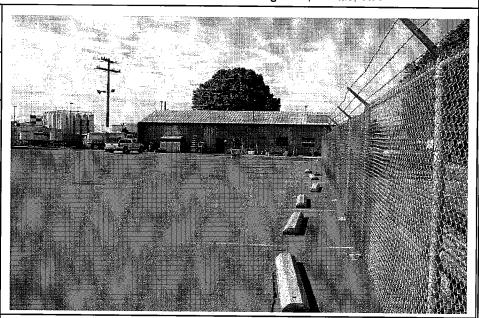
Russell Stolsen

### Direction:

South

# Comments:

Viewing from end of South Elizabeth Street. Boeing facility buildings in left. Great NW Soil facility in center of photo.



# Photographer:

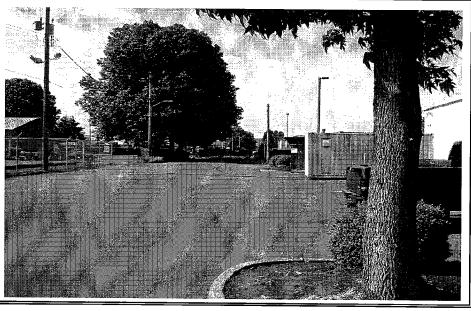
Russell Stolsen

# Direction:

South

### Comments:

Viewing from South Elizabeth St. along unnamed road to WANG. Automated Flight Services on right.



Client: King County Prosecutor Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer:

Russell Stolsen

# Direction:

North

#### Comments:

Building address at corner of Ellis Avenue South and South Elizabeth Street. KCIA Maintenance on right.



# Photographer:

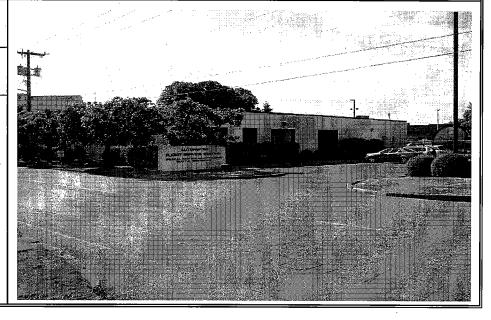
Russell Stolsen

### Direction:

Southeast

#### Comments:

Automated Flight Service Station at corner of Ellis Ave. South and South Elizabeth St. Steam Plant in background on right.



Client: King County Prosecutor

**Project Number: 815.010.01** Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

Photographer:

Russell Stolsen

Direction:

Northeast

Comments:

KCIA Maintenance facility from corner of Ellis Ave. South and South Elizabeth St.



Photographer:

Russell Stolsen

Direction:

Comments:

Client: King County Prosecutor

Project Number: 815.010.01 Date: 5/25/04

Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

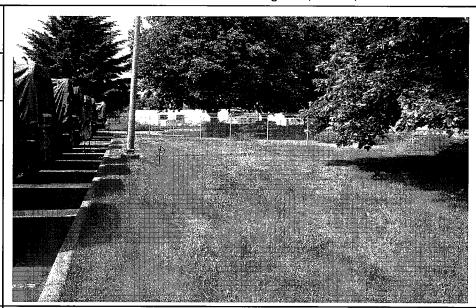
# Photographer: Russell Stolsen

Direction:

West

# Comments:

Parcel of WANG property along proposed easement. Great NW Soil Conditioning to the right beyond fence line.



# Photographer:

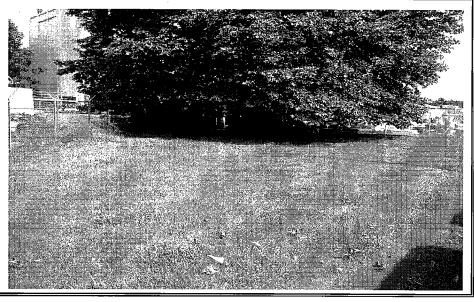
Russell Stolsen

### Direction:

East

### Comments:

Parcel of WANG property along proposed easement. Steam Plant building in left background. Boeing property in right background.



Client: King County Prosecutor

**Project Number: 815.010.01** Date: 5/25/04

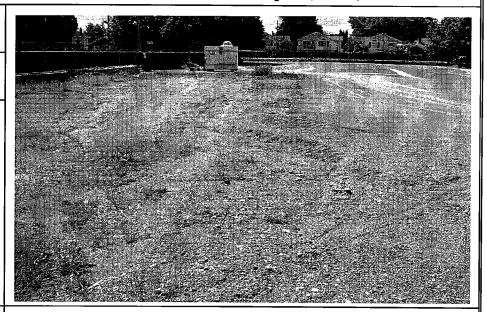
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer: Russell Stolsen

Direction: West

### Comments:

WSDOT Motor Pool property. Viewing the proposed easement at former motor pool building.



# Photographer:

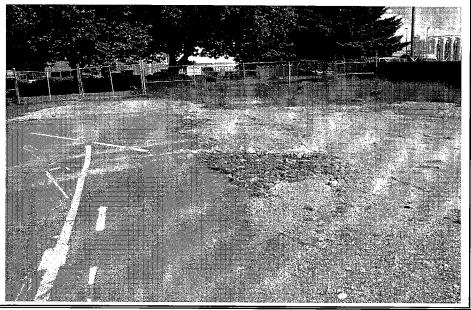
Russell Stolsen

### Direction:

East

### Comments:

WSDOT Motor Pool property. Viewing the proposed easement at former motor pool building at the location of former UST.



Client: King County Prosecutor

**Project Number: 815.010.01** Date: 5/25/04

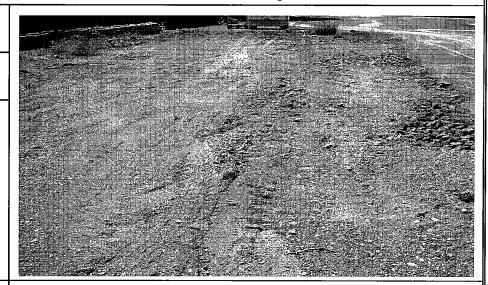
Site Name: Georgetown Steam Plant Easement Site Location: Boeing Field, Seattle, WA

# Photographer: Russell Stolsen

Direction: West

### Comments:

WSDOT Motor Pool property. Viewing the proposed easement at former motor pool building at the location of former UST.



# Photographer:

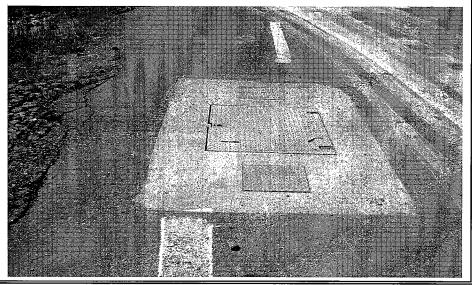
Russell Stolsen

### Direction:

West

### Comments:

WSDOT Motor Pool property. Oil/water separator located at the north side of the former motor pool building.







Georgetown Steam Plant Permanent Access Easement Aerial Photograph - 1946

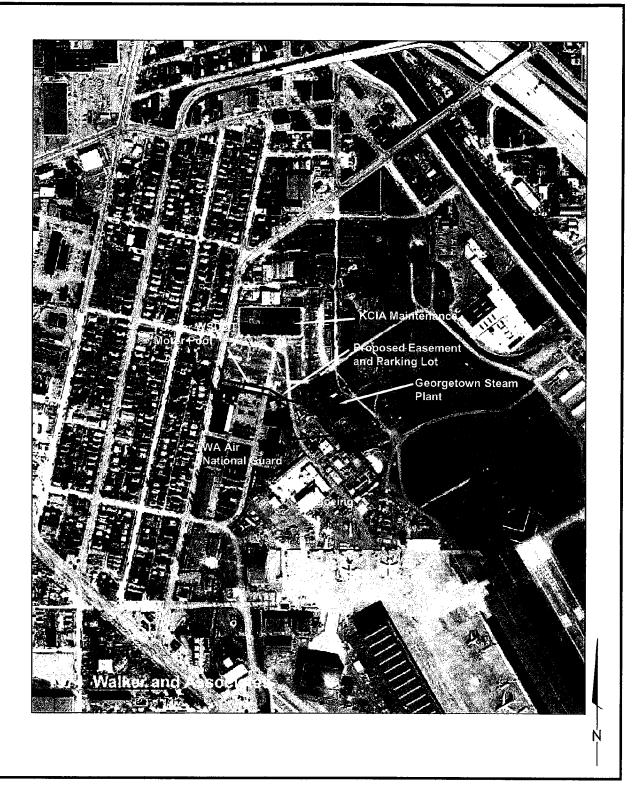
815.010.01.001

815-010\_0604

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6/04 DATE





Georgetown Steam Plant Permanent Access Easement Aerial Photograph - 19 74

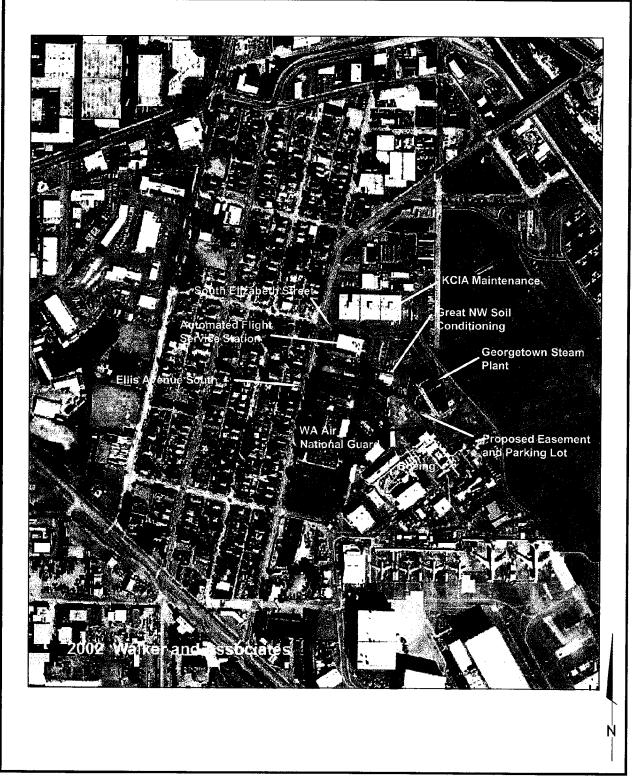
815.010.01.001

815-010\_0604

DRAWING NUMBER

EVEWED B

6/04 DATE





Georgetown Steam Plant Permanent Access Easement Aerial Photograph - 2002

815.010.01.001

815-010\_0604

DRAWING NUMBER

REVIEWED BY

6/04 DATE

SEA428577



# The EDR Radius Map with GeoCheck®

Georgetown Steam Plant Easement 6650 Ellis Avenue South Seattle, WA 98108

Inquiry Number: 1198205.2s

May 24, 2004

# The Standard in Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

# **Nationwide Customer Service**

Telephone: 1-800-352-0050 Fax: 1-800-231-6802 Internet: www.edrnet.com





## The EDR-City Directory Abstract

Georgetown Steam Plant Easemen 6650 Ellis Avenue South Seattle, WA 98108

May 26, 2004

**Inquiry Number: 1198205-7** 

## The Standard In Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

**Nationwide Customer Service** 

Telephone: 1-800-352-0050

Fax: 1-800-231-6802



